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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/220,184	12/22/98	DYBDAL	R D-350
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MM91/0405

EXAMINER

LEE, B

ART UNIT

PAPER NUMBER

2817

DATE MAILED:

04/05/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**



UNITED STATES DEPARTMENT OF COMMERCE  
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
	2

DATE MAILED:

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on \_\_\_\_\_ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 7/13/84 month(s), \_\_\_\_\_ days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice re Patent Drawing, PTO-948.       |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449                  | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474      | 6. <input type="checkbox"/> _____   |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-4, 14 are pending in the application.
- Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2. ☐ Claims \_\_\_\_\_ have been cancelled.
3. ☐ Claims \_\_\_\_\_ are allowed.
4. ☒ Claims 1-4, 5-8, 9-14 are rejected.
5. ☐ Claims \_\_\_\_\_ are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☒ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. These drawings are ☐ acceptable; ☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections **MUST** be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

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The disclosure is objected to because of the following informalities: Page 12, lines 1, 14, note that --of Fig. 1-- and --of Fig. 2-- should follow the respective occurrence of "position". Page 13, line 9, note that "It" should be rewritten as --In Figs. 1, 2, it-- for clarity. Page 14, line 23, note that reference to "182" is vague in meaning. Page 15, line 10, 12, note that --as shown in Fig. 2-- and --as shown in Fig. 1-- should follow the respective occurrence of "communicates". Page 17, lines 9, 14, note that --as shown in Fig. 1-- and --as shown in Fig. 2-- should follow the respective occurrence of "state". Page 18, line 28, should --18-- follow "signals". Page 19, line 20, for "probes 15 and 19", should "15" correctly be --25--? Pages 20-23, note that numerous reference labels include the designation "ab" (e.g. 14ab, 22ab, 44ab, 24ab, 25ab, 39ab, 16ab, 48ab, 50ab, 52ab, 40ab) which is not understood, especially since no such labels appear in any of the relevant drawing Figures. Clarification is needed.

Appropriate correction is required.

The disclosure is objected to because of the following informalities: Note that the following reference labels appearing in the corresponding figures need to be explicitly described therewith: Fig. 3A (10, 12, 14); fig. 3b (10, 12, 13, 14, 16, 25, 40, 42, 44); Fig. 4 (10a, 12, 13, 14a, 14b, 16b, 19, 40, 40a, 40b, 42, 42a, 42b, 44, 44a, 44b, 46b, 52b).

Appropriate correction is required.

The drawings are objected to because of the following: In figs. 1 and 2, note that signal --182-- needs to be provided; In fig. 4, note that numerous reference labels including --ab--

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designations need to be provided as per pages 20-23 of the specification (e.g. 14ab, 22ab, 44ab, 24ab, 25ab, etc). Correction is required.

Claims ~~1-4~~; 5-8; 9-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim ~~3~~, note that it is unclear how the respective communicated polarized signals relate to the earlier recited first and second positions.

In claim ~~4~~, note that it is unclear whether the non-positive "can be rotated" recitation is consistent with the positive recitation of the selectable waveguide being in first and second positions.

In claim ~~5~~, line 13, and claim ~~9~~, lines ~~17~~, ~~45~~, note that "and coupled to the antenna feed port" is misleading in that such a connection can not occur while the other waveguide(s) is/are coupled to the antenna feed port.

In claim ~~5~~, line 21, should "the second port" correctly be --the first port--?

In claim ~~8~~, note that the relationship of "a high frequency signal" to "high frequency signals" is unclear (e.g. same as, different, etc). Similarly, the relationship of "the low frequency signal" to "low frequency signals" is unclear.

In claim ~~10~~, note that use of term "between" for the various connections is misleading for reasons similarly applied to claim 5, 9, set forth above.

In claim ~~11~~, should --,respectively-- precede the "."?

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In claim ~~14~~, are the "orthogonally polarized signals" considered --with respect to each other--.

The following claims have been found objectionable for reasons set forth below:

In claim ~~1~~, line 5, note that --respectively-- should follow "second output port".

In claims ~~2~~, ~~10~~, "is bent(defined)" should be rephrased for clarity.

In claim 5, note that --a first position and a second-- is suggested.

In line 6, note that --first and second-- should precede "signals".

In claim ~~6~~, line 9, note that --wherein-- should precede "the first."

In claim 9, line 9, note that --,respectively-- should follow "probes"; line ~~13~~, note that --said-- should precede "back end".

In claim ~~12~~, note that --respective-- should precede "polarized".

In claim ~~14~~, line 4, note that --said-- should precede "selectable".

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim ~~1~~ is rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Tyrrell, Miller, Lancot (either '079 or '117).

Note that each reference pertains to a waveguide switch for connecting a common waveguide port to either one of two alternate waveguide ports through the use of selectable

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waveguide sections which connect the common waveguide port to the desired alternate waveguide port.

Claims ~~1, 4~~ are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Hosman (figs. 3, 4), the USSR reference, Phillips (fig. 2) Vogeley Jr. et al or Blass et al.

Note that in each reference there is disclosed a waveguide switch for connecting a common waveguide port to either one of two alternate waveguide ports through the use of first and second waveguide sections arranged in a rotatable section, which when appropriately rotated aligns the common port to the desired one of the alternate waveguide ports.

Although, not explicitly shown, a means for rotating the waveguide section (e.g. Knob) would be inherent therewith.

Claim ~~2~~ is rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Blass et al, the USSR reference, or Hosman.

Note that in each reference, when the switch is rotated into a first position, a straight waveguide is provided between the common port and one alternate port and when the switch is rotated into a second position, the common port is connected to the other alternate port through a reflective "bend" section.

Claims ~~3~~; 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Phillips, Jr, the USSR reference, Hosman, Vogeley, Jr et al or Blass et al in view of Hettlage et al.

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Note that each primary reference discloses the claimed waveguide switch except for the use of probes to communicate signals at each port.

Hettlage et al discloses a rotatable waveguide switch in which probes (4) are used at each port to communicate signals thereto.

Accordingly, it would have been obvious in view of the references, taken as a whole, to have used probes to communicate the signals in either one of the primary references. Such a modification would have been considered an obvious substitution of equivalent coupling means, suggested by a reference within the same field of endeavor (i.e. rotatable waveguide switch), thereby suggesting the obviousness of the combination.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Blass et al, the USSR reference, or Hosman in view of Hettlage et al.

Note the straight and 90 degrees bent waveguide in either one of the references. Moreover, note that use of such waveguides for propagating polarized signals would have been an obvious design consideration within the purview of one of ordinary skill in the art.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips, Jr. in view of Hettlage et al.

Note that in Phillips, Jr, the rotatable switch has been configured to propagate one of a circularly polarized signal and a linearly polarized signal to/from the common port associated therewith.

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Any inquiry concerning this communication should be directed to Benny Lee at  
telephone number (703) 308-4902.

  
BENNY T. LEE  
PRIMARY EXAMINER  
ART UNIT 2817

Lee/dc  
March 31, 2000